

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

### **Listing of Claims:**

1. (Currently amended) A method for manufacturing a measuring probe comprising a housing and two electrodes, including the method steps:

(a) ~~in order to form~~ forming a receptacle device, including providing an electrode wire sheathed with extruded plastic ~~is provided~~, the wire protruding out of the receptacle device on both ends, wherein the electrode wire is attached to the receptacle device at ~~[[its]]~~ a first end of the electrode wire, wherein in order to form the first electrode, a glass tube is pushed over a second end of the electrode wire until the glass tube comes in contact with a recess in the receptacle device, and wherein the glass tube and receptacle device are attached to one another;

(b) ~~in order to form~~ forming a base plate having a recess in the shape of the receptacle device, including providing another an additional electrode wire sheathed with extruded plastic ~~is provided~~, the additional electrode wire protruding out of the base plate on both ends, wherein the additional electrode wire is attached to the base plate at ~~[[its]]~~ an end of the additional electrode wire which protrudes out of the base plate;

(c) providing a sheathing having a first opening in the form of the base plate and a second opening in the shape of the glass tube is provided, wherein in order to form the housing, the sheathing and base plate are sealed together; and

(d) pushing the glass tube ~~is pushed~~ through the recess in the base plate until the glass tube protrudes out of an opening in the sheathing and the receptacle device comes in contact with the base plate.

2. (Currently amended) The method as recited in Claim 1, wherein to attach the electrode wire,  
[[it]] the electrode wire is pushed by [[its]] the first end of the electrode wire through a  
transverse through bore provided in the receptacle device, tightened, and an end  
protruding out of the transverse through bore is cut off.
3. (Currently amended) The method as recited in Claim 1, wherein to attach the electrode wire,  
[[it]] the electrode wire is threaded by [[its]] the first end into a receptacle means  
provided in at least one of the base plate ~~and/or in~~ and the receptacle device, and is  
tightened and a protruding end is cut off.
4. (Previously presented) The method as recited in Claim 1, wherein the sheathing and base  
plate are sealed by ultrasonic welding.
5. (Previously presented) The method as recited in Claim 4, wherein a double weld is produced.
6. (Previously presented) The method as recited in Claim 1, wherein an electrolyte liquid is  
added to the housing after sealing the base plate and the sheathing.
7. (Previously presented) The method as recited in Claim 1, wherein to form the first electrode  
an electrolyte liquid is added into the glass tube.

8. (Currently amended) The method as recited in Claim 1, wherein the receptacle device has a groove running on ~~[[its]]~~ an outside surface of the receptacle device on ~~[[its]]~~ an end of the receptacle device opposite the recess, with the electrode wire being placed in ~~this~~ the groove.
9. (Currently amended) The method as recited in Claim 1, wherein the receptacle device has at least one of outside grooves ~~and/or~~ and inside grooves into which an elastomer is extruded for manufacturing rubber projections to seal and secure the first electrode.
10. (Previously presented) The method as recited in Claim 1, wherein the receptacle device has a central recess into which an elastomer is extruded for producing a rubber buffer for buffering and sealing the first electrode.
11. (Previously presented) The method as recited in Claim 1, wherein a groove formed between the receptacle device and the base plate is sealed by an O-ring and a screw or a latching means.
12. (Currently amended) The method as recited in Claim 1, wherein to secure at least one of the first electrode ~~and/or~~ and the second electrode, ~~they are~~ the at least one of the first electrode and the second electrode is glued or welded onto the housing or extruded with the housing.

13. (Previously presented) The method as recited in Claim 1, wherein to form a temperature sensor in the base plate a tube is covered with plastic, a heat transfer compound is packed into a tip of the tube, and then a twin cable is inserted into the interior of the tube, with the two ends of the wire protruding out of the tube being soldered to contact rods.
14. (Previously presented) The method as recited in Claim 13, wherein a recess is provided in the area of the base plate to accommodate a contact plate and the contact rods are inserted into the contact plate arranged in the recess.
15. (Currently amended) The method as recited in Claim 1, wherein ~~[[the]]~~ parts of the electrode wire arranged inside the housing are at least partially chlorinated.
16. (Currently amended) The method as recited in Claim 1, wherein ~~[[the]]~~ parts of the electrode wire which are accessible from outside the housing are at least partially gold plated.
17. (Currently amended) The method as recited in Claim 1, wherein at least one of the base plate, ~~and/or~~ the sheathing ~~and/or~~ and the receptacle device ~~is/are~~ is manufactured by inserting into a mold and extruding plastic into the mold.

18. (Currently amended) A method for manufacturing a measuring probe having first and second electrodes, comprising:

providing a receptacle device, wherein a first electrode wire protrudes out of the receptacle device and a first end of said first electrode wire is attached to the receptacle device;

positioning a tube over a second end of said first electrode wire until the tube comes in contact with a recess in the receptacle device;

providing a base plate having a recess, wherein a second electrode wire protrudes out of the base plate and a first end of said second electrode wire is attached to the base plate;

providing a sheathing having a first opening in the shape of said base plate and a second opening in the shape of said tube;

sealing the sheathing and base plate together to form a housing; and

pushing the tube toward the recess in the base plate, wherein the tube protrudes out of said second opening in the sheathing and the receptacle device is in contact with the base plate,

wherein to attach said first electrode wire to said receptacle device, said first end of said first electrode wire is pushed through a transverse opening provided in the receptacle device, tightened, and a protruding end is cut off.

19. (Previously presented) The method of claim 18, wherein the tube is made of glass.

20. (Previously presented) The method of claim 18, wherein the first electrode wire and the second electrode wire are sheathed with extruded plastic.
21. (Cancelled)
22. (Previously presented) The method as recited in Claim 18, wherein to attach said first electrode wire to said receptacle device, said first electrode wire is threaded by said first end into a receptacle means provided in at least one of the base plate and receptacle device, tightened, and a protruding end is cut off.
23. (Previously presented) The method as recited in Claim 18, wherein an electrolyte liquid is added to the housing after sealing the base plate and the sheathing.
24. (Previously presented) The method as recited in Claim 18, wherein the first electrode is formed by adding an electrolyte liquid into the tube.
25. (Previously presented) The method as recited in Claim 18, wherein the receptacle device includes a groove disposed on an outside surface of the receptacle device at an end opposite the recess, and wherein said first electrode wire is disposed in said groove.
26. (Previously presented) The method as recited in Claim 18, wherein the receptacle device includes grooves into which an elastomer is extruded for manufacturing rubber projections to seal and secure the first electrode.

27. (Previously presented) The method as recited in Claim 18, wherein the receptacle device includes a central recess into which an elastomer is extruded for producing a rubber buffer for buffering and sealing the first electrode.
28. (Previously presented) The method as recited in Claim 18, wherein a groove is formed between the receptacle device and the base plate and is sealed by at least one of an O-ring, a screw and a latching means.
29. (Previously presented) The method as recited in Claim 18, wherein the first electrode and the second electrode are glued or welded onto the housing or extruded with the housing.
30. (Previously presented) The method as recited in Claim 18, further comprising a temperature sensor disposed in the base plate, wherein said temperature sensor includes a sensor tube covered with plastic, wherein a heat transfer compound is packed into a tip of the sensor tube and a twin cable is inserted into the interior of the sensor tube, and wherein two ends of a wire protruding out of the sensor tube are attached to contact rods.
31. (Previously presented) The method as recited in Claim 18, further comprising a contact plate disposed in said recess in the base plate, and wherein contact rods are inserted into the contact plate.

32. (Previously presented) The method as recited in Claim 18, wherein parts of the first and second electrode wires disposed inside the housing are at least partially chlorinated.
33. (Previously presented) The method as recited in Claim 18, wherein parts of the first electrode wire which are accessible from outside the housing are at least partially gold plated.
34. (Previously presented) The method as recited in Claim 18, wherein at least one of the base plate, the sheathing and the receptacle device is manufactured by inserting into a mold and extruding plastic into the mold.